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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,888	04/06/2001	Chung Liu	PALM-3588.US.P	5564

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EXAMINER

WU, QING YUAN

ART UNIT	PAPER NUMBER
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2194

MAIL DATE	DELIVERY MODE
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02/21/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/827,888	Applicant(s) LIU ET AL.	
	Examiner Qing-Yuan Wu	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-35, 37-43, 45-51 and 53-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-35, 37-43, 45-51 and 53-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119


- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.


WILLIAM THOMSON
INTERVIEWS PATENT EXAMINER

DETAILED ACTION

1. Claims 29-35, 37-43, 45-51 and 53-58 are pending in the application.
2. It is noted that claims 38 and 58 have underlined subject matters that are not currently amended.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 29-30, 32-35, 38-39, 41-43, 46-47 and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusano (U.S. Patent 5,796,397), in view of Bogard (U.S. Patent 6,757,365).

5. Kusano was cited in the previous office action.

6. As to claim 29, Kusano teaches the invention substantially as claimed including a method of performing task switching in a portable processing device, the method comprising:

receiving a first user request to perform a task switch from a currently executing first program on the portable processing device [abstract; col. 2, lines 9-14 and 58-67; col. 6, lines 4-7];

displaying a task switching menu listing a plurality of programs installed on the portable processing device that are useful to execute based at least partly on a currently executing program [col. 2, lines 14-19, 53-55; col. 5, lines 33-35; Fig. 7];

receiving a selection from the user of one of the plurality of programs [col. 6, lines 47-55; Fig. 8];

executing the selected one of a plurality of programs [abstract; col. 2, lines 9-19 and 43-55; col. 4, lines 22-34; col. 6, lines 47-55].

7. Kusano does not specifically teach listing only ones of a plurality of programs installed on the portable processing device that are useful (Examiner's interpretation of "ones" as "one or more" since the applicant failed to define nor preclude this limitation). However, Kusano disclosed input items that have no matching items in the new application could be re-used and data obtained by the switched application mode is applicable in a new application mode [col. 10, lines 24-27; col. 4, lines 29-34]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have modified the teaching of Kusano to list only ones of a plurality of programs installed on the portable processing device that are useful to create a more efficient menu that avoid fruitless attempts that would yield non-matching items as implied by Kusano (i.e. not listing a clock, a calculator, etc. as displayed in Fig. 3 in the switch to application type of Fig. 7).

8. Furthermore, Kusano does not specifically teach context switching as recited. However, Bogard teaches storing a program state associated with a display status when the first user

request was received of the first program into a first context packet [Bogard, col. 6, lines 53-63], suspending execution of the first program [Bogard, col. 7, lines 28-30], and upon receiving a second user request, suspending the execution of the selected program and resuming execution of the first program with the associated display status based on the context packet [Bogard, col. 7, lines 33-35; col. 9, lines 11-20].

9. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combined the teaching of Kusano with the teaching of Bogard, because the teaching of Bogard enhances the task switching capability of Kusano by providing the ability to switch between different programs and to return to the point where the user left off in the currently activated program [Bogard, abstract; col. 6, lines 53-63].

10. As to claim 30, Kusano as modified teach the invention substantially as claimed including wherein the task switching menu is a pull-down menu [Fig. 7; col. 3, lines 35-36; col. 5, line 34].

11. As to claim 32, this claim is rejected for the same reason as claim 29 above.

12. As to claim 33, this claim is rejected for the same reason as claim 29 above.

13. As to claim 34, Kusano as modified teach executing a non-multitasking operating system on the portable processing device [Bogard, col. 6, lines 45-52].

14. As to claim 35, this claim is rejected for the same reason as claim 29 above.

15. As to claim 38, this claim is rejected for the same reason as claim 29 above. In addition, Kusano as modified teach the invention substantially as claimed including a portable processing device comprising:

at least on processor [5, Fig. 1; 13, Fig. 2];

a display device [4, Fig. 1; 11, 16, Fig. 2];

an input device [1, Fig. 1; 15, 16, Fig. 2];

a memory [1, 3, 6, Fig. 1; 12, 14, Fig. 2]; and

a bus connecting the at least on processor, the display device, the input device, and the memory [col. 4, lines 7-48; Figs. 1-2]. (Please note that the functional limitations in the apparatus claim were not given patentable weight because they are immaterial to the structure of the apparatus. However for examination purposes, the above claim will be treated as computer readable medium claim. See MPEP 2114 regarding to the interpretation of apparatus claims.)

16. As to claims 39 and 41-43, these claims are rejected for the same reason as claims 30, and 32-34 above.

17. As to claims 46-47 and 49-51, these claims are rejected for the same reason as claims 29-30 and 32-34 above.

18. Claims 31, 40, 48 and 57-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusano and Bogard as applied to claims 29, 38 and 46 above, in view of Bodin et al (hereafter Bodin) (U.S. Patent 5,675,762).

19. Bodin was cited in the previous office action.

20. As to claim 31, Kusano and Bogard do not specifically teach releasing temporary memory used by the first currently executing program. However, Bodin teaches the releasing of memory used by a currently running program when the currently running program is switch to the background [Bodin, col. 6, lines 44-47; col. 2, lines 49-52; 420, Fig. 5]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combined the teaching of Kusano, Bogard and Bodin because Bodin's method of releasing memory of currently running program would improve the resource management and performance of Kusano and Bogard's system by allowing re-use of resources once the program is suspended.

21. As to claims 40 and 48, these claims are rejected for the same reason as claim 31 above.

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22. As to claims 57-58, these claims are rejected for the same reason as claims 29, 31, 38 and 40 above.

23. Claims 37, 45, 53 and 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusano and Bogard as applied to claims 29, 38 and 46 above, in view of Song et al. (hereafter Song) (U.S. Patent 6,061,711).

24. Song was cited in the previous office action.

25. As to claims 37 and 54, Kusano and Bogard do not specifically teach providing a context packet control panel to permit the user to set at least one parameter that affects context packets, and to manage an amount of memory used by the context packets. However, Song teaches that an application programmer could choose an appropriate point at a location in the executing program that requires preserving a minimal portion of the processor information across a context switch [Song, abstract, lines 20-30; col. 2, lines 16-21]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combined the teaching of Kusano, Bogard and Song to further enhance the efficiency in resource management of Kusano and Bogard to improve processor performance [Song, col. 1, line 43-col. 2, line 9].

26. As to claims 45, 53 and 55-56, these claims are rejected for the same reason as claims 37 and 54 above.

Response to Arguments

27. Applicant's arguments filed 12/26/07 have been fully considered but they are not persuasive.

28. In the remarks, Applicant argued in substance that:

- a. Neither Kusano nor Bogard teaches or suggests the use of context packets for storing a program state associated with a display status when a request is made to switch applications.
- b. Motivation for combining the Kusano and Bogard references are lacking.
- c. The combination of Kusano, Bogard and Bodin represents hindsight reconstruction.
- d. Prior art of record failed to teach the context packet panel is accessible to a user.

29. Examiner respectfully traversed Applicant's remarks:

30. As to point (a), Examiner respectfully disagrees and submits that applicant failed to define what a context packet is, in light of the specification a context packet is described as containing context information of a particular process stored in memory [specification, page 8, lines 9-10; page 24, lines 20-21] when context switched out and consequently being used to resumed or context switched in the particular process, which is clearly being taught in Bogard. Even if the context packet was explicitly defined in the specification as a specific data structure, Bogard would still satisfy the limitation because the state information in Bogard are nonetheless

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store in a way that is accessible to the program/scheduler that uses it to resumed the suspended process.

31. As to point (b), the Examiner respectfully disagrees and submits that Kusano and Bogard are in the same field of endeavor of switching between application programs, given the advantages of switching application and being able to preserve program state as being disclosed by Bogard, one of ordinary skill in the art would be motivated to combined the teachings of Kusano and Bogard.

32. As to point (c), in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a combination is proper. In addition, the motivation with respect to claim 31 was further clarify above. More specifically, Bodin was brought in solely for the releasing of unused computer resources for reused, one of ordinary skill in the art of resource management (i.e. garbage collection) would find such teaching to be greatly beneficial to any computer related system and applied such teaching to Kusano and Bogard.

33. As to point (d), the Examiner respectfully disagrees and submits that applicant failed to defined what "a user" includes or excludes, therefore, an application programmer being a user clearly satisfied the limitation.

34. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qing-Yuan Wu whose telephone number is (571) 272-3776. The examiner can normally be reached on 8:30am-6:00pm Monday-Thursday and alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Qing-Yuan Wu

Patent Examiner

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WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER